

*Pulsellum salishorum* spec. nov.,  
A New Scaphopod from the Pacific Northwest

BY

ELSIE MARSHALL

Washington State Museum, University of Washington, Seattle, Washington 98195

(1 Plate; 5 Text figures)

ONLY TWO GENERA OF SCAPHOPODA, *Dentalium* and *Cadulus*, have been reported from Puget Sound, the Strait of Juan de Fuca and British Columbia (BERNARD, 1970; KOZLOFF, 1974). In this paper, a new species, belonging to the genus *Pulsellum*, is described from this region. This is the first record of the genus from the United States West Coast.

GADILIDA Starobogatov, 1974

SIPHONODENTALIIDAE Simroth, 1894

*Pulsellum* Stoliczka, 1868Type species: *Pulsellum lofotense* M. Sars, 1865*Pulsellum salishorum* Marshall, spec. nov.

**Description:** The white shell is moderately curved and attains a size of 10 mm, with an average of 8.5 mm (74 specimens measured). The apical aperture is circular with the diameter 0.5 mm. The oral aperture is also circular, with a diameter of 1.3 mm. The surface of adult shells is dull with a great deal of erosion. Juvenile shells are glossy. Growth rings are faintly visible under magnification. The widest point is at the oral aperture.

The living animal has a translucent tubular foot with a crenulated disk. When contracted, the disk, which has a short central projection, is invaginated (Figure 1). During extension of the foot, the disk evaginates (Figure 2).

In the radula the lateral tooth is hood-shaped and has three moderately sharp cusps. The central tooth is trapezoidal, with a concave lower edge. The marginal tooth is in the form of a parallelogram, with an anterior projection and a corresponding posterior socket (Figures 3, 4).

**Etymology:** *Pulsellum salishorum* is named for the Coast Salish Indians from the area in which it was found.

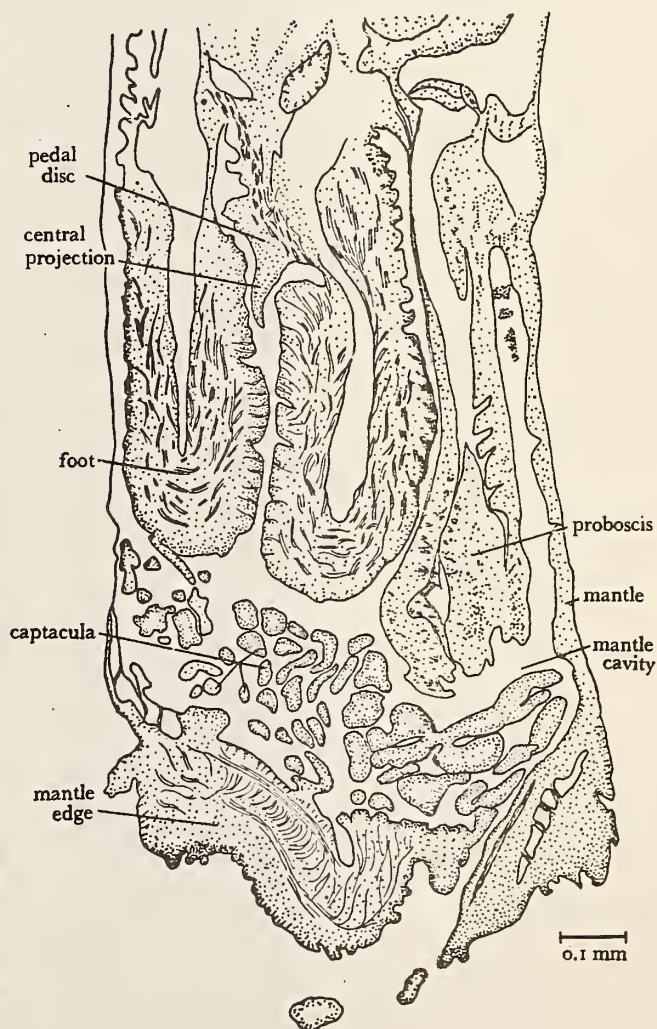


Figure 1

*Pulsellum salishorum*

Sagittal section of the front part of the body of *Pulsellum salishorum*. The central projection of the disk is evident in the invaginated part of the retracted foot.

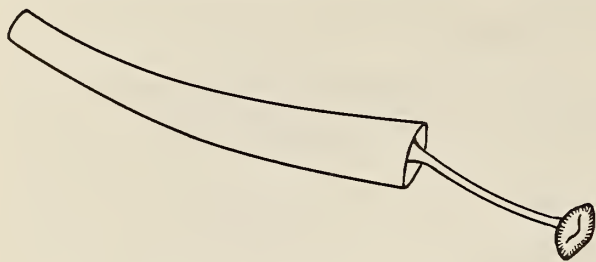


Figure 2

*Pulsellum salishorum*

The live animal with the foot extended

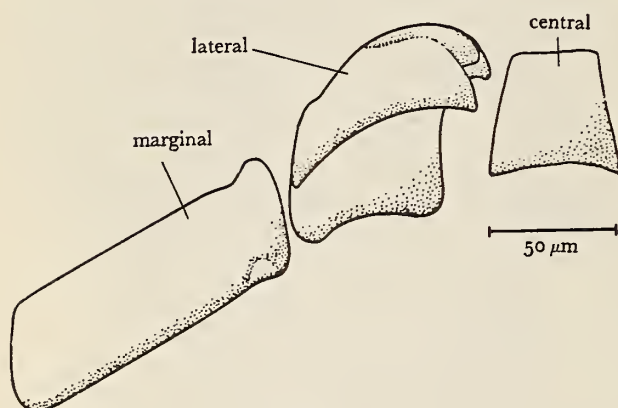


Figure 3

*Pulsellum salishorum*

A half row of radular teeth showing 3 of the 5 teeth disarticulated

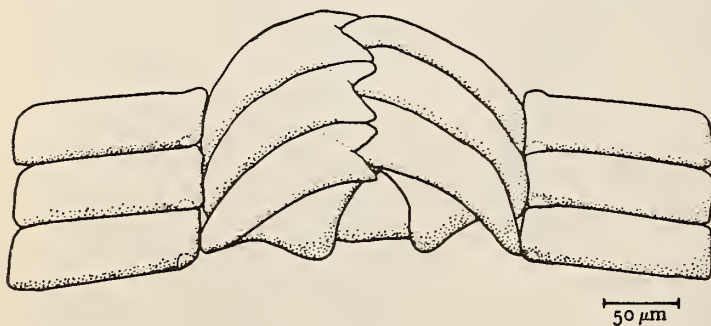


Figure 4

*Pulsellum salishorum*

Three rows of radular teeth showing the overlapping laterals

**Holotype:** The holotype (Figure 6, top row, left), is deposited in the United States National Museum, Washington, D.C. (USNM 782263). The shell measures 9.5 mm in length. The oral aperture is 1.37 mm, and the apical aperture is 0.5 mm in diameter.

**Paratypes:** 6 specimens in the United States National Museum, Washington, D.C. (USNM 782264).

6 specimens in the American Museum of Natural History, New York City, N.Y. (AMNH 198610).

6 specimens in the Los Angeles County Museum, Los Angeles, California (#1929 in type collection).

4 specimens in the National Museum of Canada, Ottawa, Ontario (#86068).

4 specimens in the Academy of Natural Sciences, Philadelphia (ANSP 352474).

4 specimens in the Washington State Museum, University of Washington, Seattle, Washington (#35663).

**Type Locality:** East Sound, Orcas Island, San Juan Islands, Washington (48°36'N, 122°51'W); 18-22 meters.

**Distribution:** South Lopez Island, San Juan Islands, Washington, to Bowen Island, British Columbia: 3-91 meters.

#### Localities Collected:

1. Sucia Island, San Juan Islands, Washington; entrance to Echo Bay; dredged in 15-18 meters, broken shell and sandy mud bottom; August, 1973; 1 specimen; Coll. Elsie Marshall.
2. Tunstal Bay, Bowen Island, British Columbia; dredged in 36 meters; August 9, 1971; 8 specimens; Coll. George Holm and Terry Smith.
3. Friday Harbor, San Juan Island, San Juan Islands, Washington; sandy mud; dredged in 36-27 meters; May 7, 1974; Coll. R. L. Shimek.
4. McKay Harbor, S. Lopez Island, San Juan Islands, Washington; dredged, 12-6 meters; sandy mud; May 14, 1974; 3 specimens; Coll. Elsie Marshall.
5. East Sound, Orcas Island, San Juan Islands, Washington; dredged in 27 meters; gelatinous mud; July 8, 1976; 7 specimens; Coll. Elsie Marshall.
6. Between Jones and Yellow Island, San Juan Islands, Washington; dredged in 54-91 meters; November 21, 1976; Coll. Friday Harbor Laboratories.
7. same as #5; April 3, 1977; 30 specimens; Coll. Elsie Marshall.
8. Cowlitz Bay, Waldron Island, San Juan Islands, Washington; in 22 meters; sandy mud; April 4, 1977; 4 specimens; Coll. Elsie Marshall.
9. same as #5; August 16, 1977; 39 specimens; Coll. Elsie Marshall.

